

# Isolation of Primary Rat Hepatocytes with Multiparameter Perfusion Control

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jove.com/video/62289

## Materials

Name	Company	Catalog Number	Comments
<b>Material/Equipment</b>			
1 mL syringe	Nipro		
27G needle	Nipro		
Black braided silk non-absorbable, non-sterile surgical suture	Look	SP117	
Bochem 18/10 stainless steel forceps, sharp tip contain bent round tip	Bochem	10333511	
Disposable Perfusion Set	Vasinfuse	BPF-112	
Floating circular 1.5 mL microcentrifuge tube rack	Sigma-Aldrich	R3133	
German Standard Tissue Forceps, Serrated / 1×2 teeth , 14.5cm	Walentech		
Greiner Cellstar aspirating pipette	Merck	GN710183	
Haemocytometer			
Integrated Perfusion System	Vasinfuse	IPS-001	
Iris Scissors curved, stainless, 11cm	Optimal Medical Products Pte Ltd	CVD	
Light microscope with 10X lens	Olympus		
Mesh Sheet 100µM Nylon	Spectra-Teknic(s) Pte Ltd	06630-75	
Operating Scissors, BL/BL, 13cm	Optimal Medical Products Pte Ltd	STR – BL/BL	
Operating Scissors, SH/BL, 13cm	Optimal Medical Products Pte Ltd	STR – SH/BL	
Reverse force hemostatic clip	Shanghai Jin Zhong Pte Ltd	XEC230	
Water bath	Grant		
<b>Reagents/Chemicals</b>			
10X Phosphate buffered saline (PBS)	Sigma-Aldrich		
Bovine serum albumin (BSA)	Sigma-Aldrich	A9056	

CaCl <sub>2</sub> ·2H <sub>2</sub> O	Merck	137101	
Collagenase Type IV	Gibco	17104019	
Dexamethasone	TCI	D1961	
DMEM	Gibco	31600-034	
Glutamax	Gibco	35050061	
HEPES	Invitrogen	11344-041	
Insulin	Sigma-Aldrich	1-9278	
KCl	VWR	VWRC26764.298	
KH <sub>2</sub> PO <sub>4</sub>	Sigma-Aldrich	P5379	
Linoleic acid	Sigma-Aldrich	L9530	
NaCl	Sigma-Aldrich	S5886	
NaHCO <sub>3</sub>	Sigma-Aldrich	S8875	
NaOH	Merck	106462	
Penicillin-Streptomycin	Sigma-Aldrich	P4333	
Type I bovine collagen	Advanced BioMatrix	5005-100ml	
William's E Media	Sigma-Aldrich	W1878	